

**REMARKS/ARGUMENTS**

New independent claim 21 has been added to the application as discussed below.

New claims 22-27 have been added to depend on claim 21.

The present amendment adds no new matter to the application.

**35 U.S.C. §112, First Paragraph Rejection**

Claim 7, 9, 11, 13, 15, and 17 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner asserts that the claims contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. Specifically, the Examiner asserts that “it is unclear as to where the limitation in claim 7 of, ‘a notch...having a width of approximately the same diameter as the through hole,’ (lines 22-24) is disclosed in the specification and drawings.” The Examiner refers to FIG. 9 and FIG. 11, in which the notch 20 and through hole 19 are depicted and states that in the figures “the width of notch 20 is significantly smaller than the diameter of through hold 19 (i.e. about 1/4 to 1/3 smaller).” The Examiner also notes that she is unaware of any location in the specification that discloses the relative dimensions of the notch and through hole.

Accordingly, new independent claim 21 has been added which includes substantially the same language as claim 7, except that it includes the limitation, “a notch...having a width that is smaller than the diameter of the through hole.” Thus, Applicant respectfully asserts that claim 21 is in condition for allowance. Since new claims 22-27 depend from claim 21, Applicant respectfully asserts that claims 22-27 are also in condition for allowance.

**Applicant's Arguments**

Notwithstanding the limitation included in new claim 21, Applicant respectfully traverses the present rejections and request reconsideration and allowance of the remaining claims 7, 9, 11, 13, 15, 17, and 19 for the following reasons.

The Federal Circuit in Vas-Cath Inc. v. Mahurkar held that drawings alone could serve to provide written description support of claims. 19 U.S.P.Q.2d 1111, 1118 (Fed. Cir. 1991) *citing, inter alia*, In re Heinle, 342 F.2d 1001,1007 (C.C.P.A. 1965) (stating with regard to claims reciting “approximately one-fourth of the circumference of said core,” that “the claim requires only an approximation” and that supporting disclosure exists in the drawings when the drawings conform to the one-fourth limitation). The court further clarified by stating, “the proper test is whether the drawings conveyed with reasonable clarity to those of ordinary skill that [the inventor] had in fact invented the [invention] recited in those claims.” Vas-Cath Inc. at 1119.

In this case, FIG. 9 represents the claimed notch as element 20 and the through hole as element 19. Applicant respectfully asserts that the claim 7 limitation, “a notch...having a width of approximately the same diameter as the through hole,” is disclosed in FIG. 9 and FIG. 11 with reasonable clarity to those of ordinary skill that the Applicant had invented the reactor of Claim 7 having a notch and through hole having approximately the same diameter. Applicant asserts that notch 20, as depicted in FIG. 9 and FIG. 11 is approximately the same diameter as the through hole regardless of whether it is depicted as 1/4 to 1/3 smaller since the claim requires only an approximation and given the size of the reactor unit as a whole compared to the notch and through hole, the notch and through hole are approximately the same diameter. The present case is clearly on all fours with Vas-Cath cited above, and that case requires withdrawal of the rejection under § 112.

Moreover, the specification discusses the placement of the through hole 19 and notch 20 on page 13, lines 1-5. It is described, “In the center [of the unit], there is provided a through hole 19 for the joint. A cut 20 is made that extends from the through hole 19 for the joint to the upper side of the fin base plate 17.” The specification describes the cut 20, or notch, and the through hole as allowing “central symmetry.” In combination with FIG. 9, one of ordinary skill in the art would understand that the notch 20 and through hole 19 were contemplated by the inventor to be approximately the same diameter, both located in the center of the unit.

For the above reasons, the Applicant respectfully asserts that claim 7 and its dependent claims 9, 11, 13, 15, 17, and 19 are in condition for allowance.

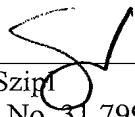
### **Conclusion**

For all of the above reasons, claims 7, 9, 11, 13, 15, 17, 19, and 21-27 are now in condition for allowance. Therefore, Applicants respectfully request reconsideration of the application and withdrawal of the rejections, and a prompt notice of allowance is earnestly solicited.

Questions are welcomed by the below signed attorney for the Applicants.

Respectfully submitted,

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